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## Two new species of the genus *Palpita* Hübner from southeast Asia (Lepidoptera, Pyralidae, Pyraustinae)

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**Abstract** Two new species, *Palpita asiaticalis* and *P. perunionalis*, are described from south-east Asia, with illustrations of moths and genitalia.

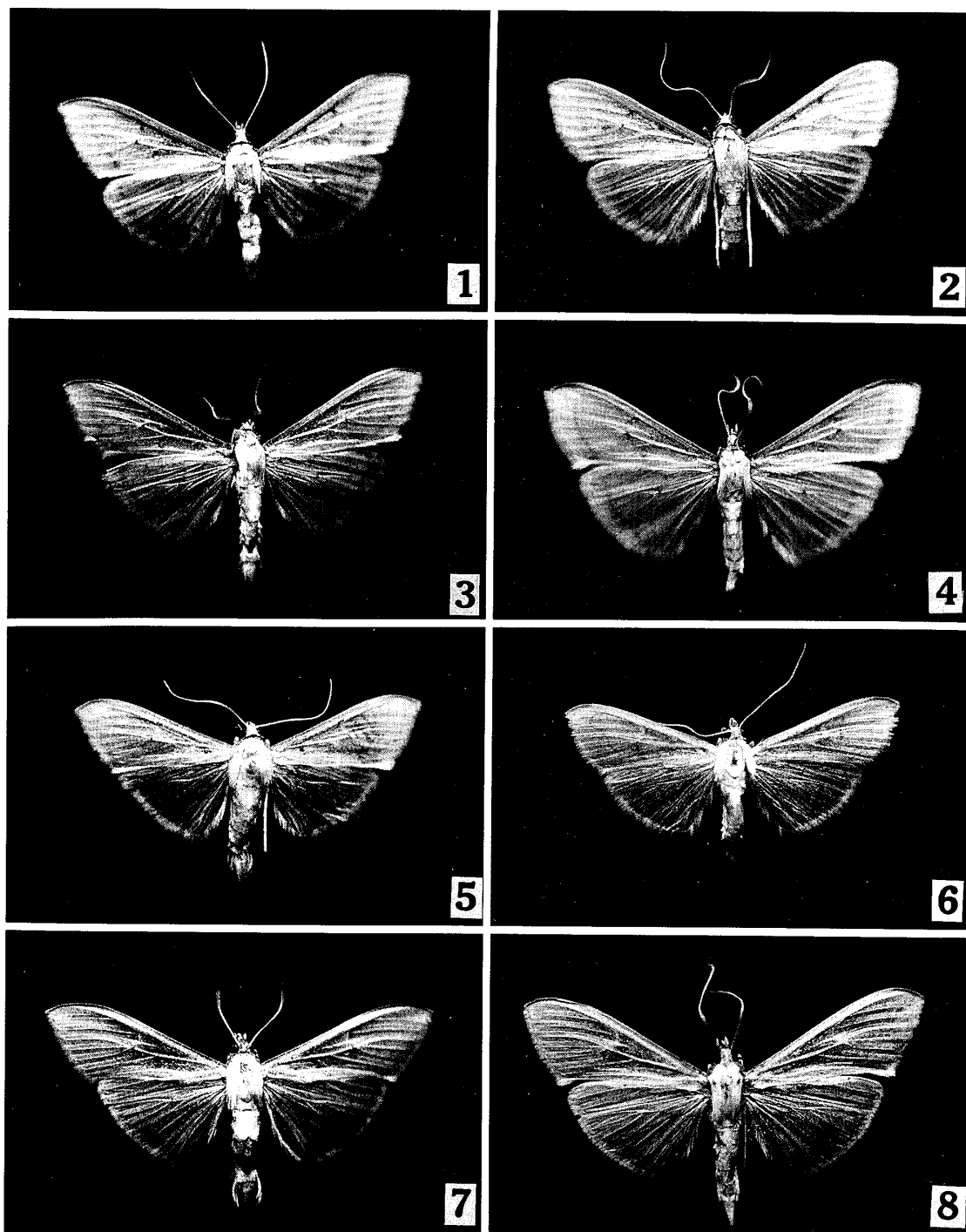
**Key words** Pyralidae, Pyraustinae, *Palpita*, nominal taxa, allopatric.

Munroe, 1977: 67, points out, "I have earlier noted (Munroe 1959) that there are numerous tropical and subtropical species of *Palpita* with confusingly similar white maculation, but with strikingly different genitalia." My study of *Palpita* in progress has endorsed his statement that so many confoundedly alike species of the genus, mostly new, exist in the Indo-Malayan region. However, before describing new species a sound identification of most of the nominal taxa is vital by dissecting the genitalia of type specimens. As the preliminary paper on *Palpita* two new species will be described hereunder from southeast Asia based upon my personal collection, excepting some paratypes designated here collected by Dr M. Owada which belong to the National Science Museum, Tokyo. *P. asiaticalis* sp. nov. is the replacement of eastern palaearctic *P. nigropunctalis* (Bremer) and *P. perunionalis* sp. nov. is a close relative of African and south European *P. unionalis* (Hübner). Both new species are allopatric with their counterparts.

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*Palpita nigropunctalis* (Bremer), 1864: 67, pl. 6: 5, was described from the Ussuri district, Far East Russia, and its junior synonym *P. neomera* (Butler), 1878: 57, pl. 39: 5, from Japan, and it has been known from Japan, southeast Siberia, Sakhalin, the Kuriles (Kunashir, Shikotan), Korea and China<sup>1)</sup> (cf. Inoue, 1982, 1: 345; 2, pl. 40: 39). It is very common throughout Japan, from high altitude to plains, and its larva is well-known as a pest of *Ligustrum japonicum*, *L. obtusifolium*, *Osmanthus fragrans* and *O. ilicifolius* (Oleaceae). This species was recorded by Snellen, 1890: 610, from Sikkim and Bhutan, by Hampson, 1896: 352, from India and Sri Lanka, and by Swinhoe, 1900: 505, from Penang and Nilgiri Hills. Strand, 1918: 44, Shibuya, 1923: 237, and Yamanaka, 1972: 268, recorded it from Taiwan. Recently Kirti & Rose, 1992: 67, illustrated male and female genitalia and recorded Khasi Hills under the same species name. However, according to my observation the specimens of *nigropunctalis*-like species from Taiwan, southwest China, Thailand, Nepal and India before me are specifically distinct from *nigropunctalis*, though the two species are extremely similar in appearance. The new species will be described below.

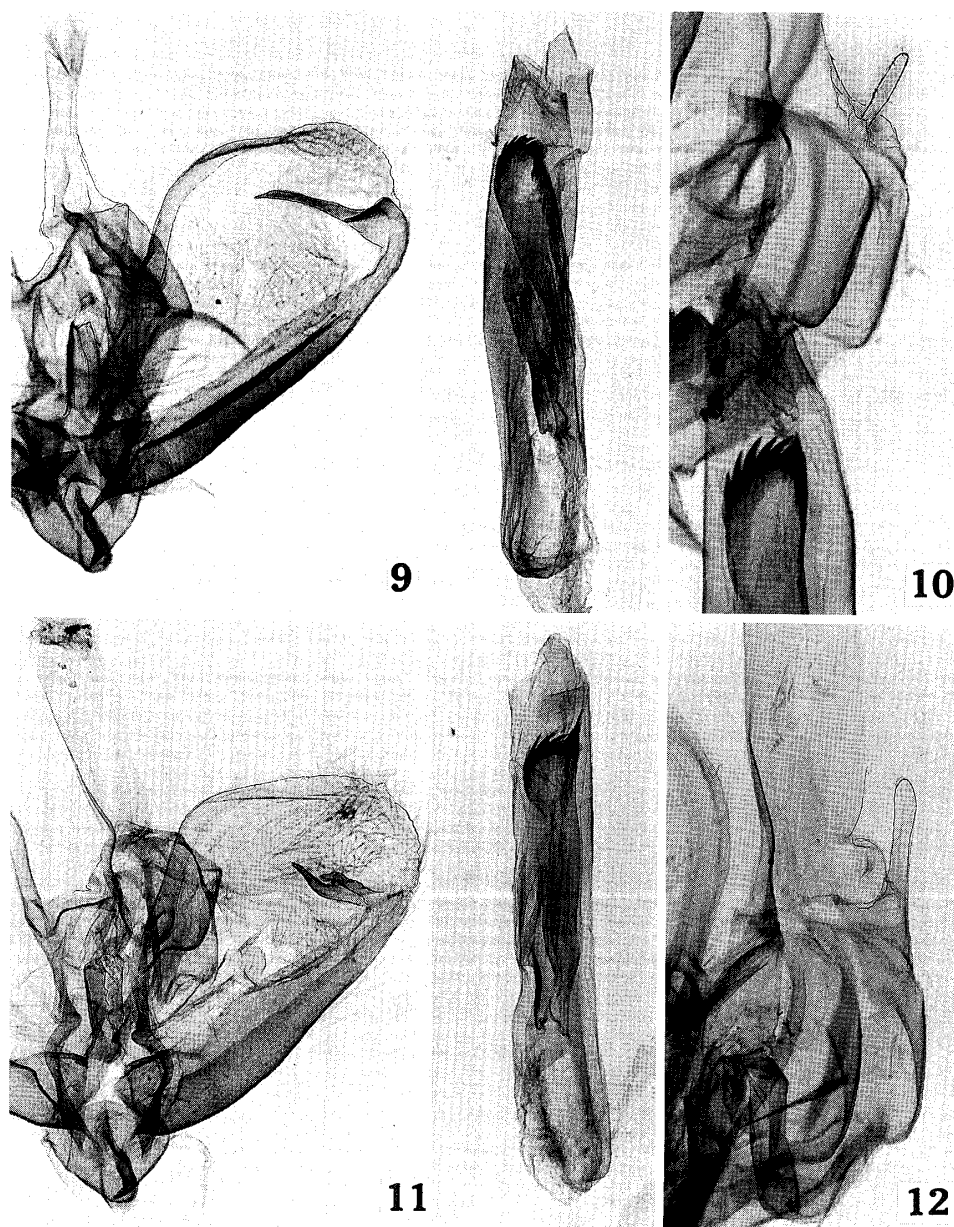
<sup>1)</sup> I examined 2♂ from Soochow and Hoengshan, east and southeast China in the Höne collection at Museum A. Koenig, Bonn. Its occurrence of northeast China is beyond doubt.



Figs 1-8. *Palpita* spp. 1. *P. nigropunctalis* (Bremer), ♂. 2. *Ditto*, ♀. 3. *P. asiaticalis* sp. nov. Holotype ♂. 4. *Ditto*. Paratype ♂. 5. *P. unionalis* (Hübner), ♂. 6. *Ditto*, ♂. 7. *P. perunionalis* sp. nov. Holotype ♂. 8. *Ditto*. Paratype ♀.

***Palpita asiaticalis* sp. nov.** (Figs 3, 4)

Very often it is nearly impossible to distinguish this species from *nigropunctalis* by size, colour and maculation. In general forewing with ochreous costal band less vivid in colour, two black dots at dorsal margin of cell and two on discocellulars weaker and subterminal fascia of both wings a little closer to termen, more slender and it is often very weak or

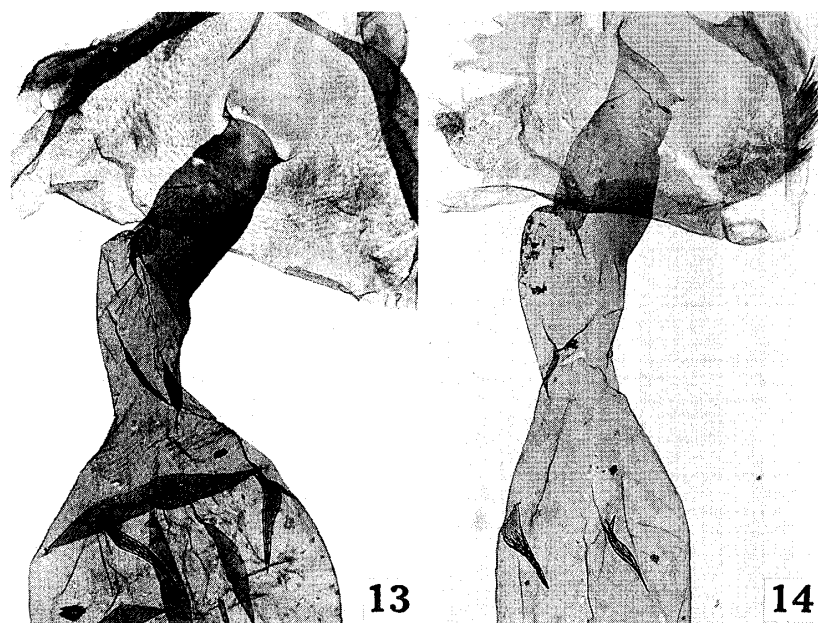


Figs 9-12. Male genitalia of *Palpita* spp. 9. *P. nigropunctalis* (HI Slide 15307). 10. *Ditto*. Uncus, lateral view (HI Slide 15511). 11. *P. asiaticalis* (HI Slide 15509). 12. *Ditto*. Uncus, lateral view (HI Slide 15514).

nearly vanished. Hindwing with termen more straightish than in *nigropunctalis*, discocellular dash and posterior dot usually weaker.

Male genitalia (figs 11, 12). Uncus a short rod-like process, apex not bearing spines, while in *nigropunctalis* a rod-like process of uncus<sup>2)</sup> is very small and membranous. Harpe with two processes as in *nigropunctalis*, but the longer ventral one much shorter, its apex reaching about halfway between ventral and costal margin of valva, while in *nigropunctalis*

<sup>2)</sup> I examined more than 50 species of *Palpita* from east Asia and found that most of them have a sclerotized stick- or rod-like process of uncus with terminal spines, but in only five species, including the above cited two, uncus is weakly sclerotized or membranous with spineless tip.

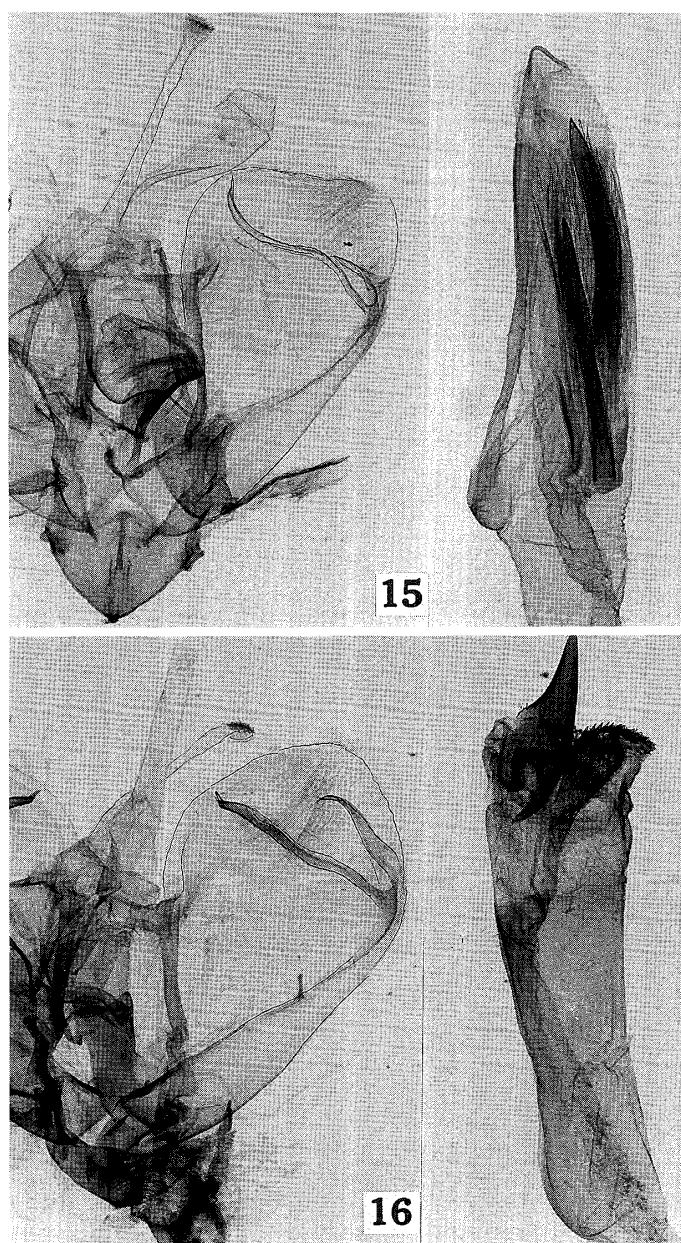


Figs 13-14. Female genitalia of *Palpita* spp. 13. *P. nigropunctalis* (HI Slide 15508). 14. *P. asiaticalis* (HI Slide 15510).

the apex of longer one is nearer to costal than to ventral margin. One of double cornuti of *nigropunctalis* is spoon-shaped, with a long shaft, apex rounded, densely spinulose, the other smaller one slender, aciculate, while in *asiaticalis* the latter cornutus is more clearly defined and produced independently from the spoon-shaped one.

Female genitalia (fig. 14). Caudal half of ductus bursae partly and more weakly sclerotized than in *nigropunctalis*.

Type-series. HOLOTYPE. ♂ : Wushe, Nantou Hsien, Taiwan, 27. xii. 1989 (A. Kawabe). PARATYPES. *India* : Madras, 12. x. 1977, 1 ♂ (*ex* H. Kezuka). Darjeeling, 2,100 m, Bengal, 9. xi. 1981, 1 ♀ ; 28. ix. 1983, 1 ♂ 1 ♀ ; Yuksam, 1,780 m, West Sikkim, 25. ix. 1983, 3 ♂ 3 ♀ (M. Owada). *Nepal* : Manidingma, 2,240 m, Solukhumbu, Sagarmatha, 8. x. 1979, 1 ♂ ; Jiri, 1,860 m, Dolakha, Janakpur, 15-16. x. 1979, 1 ♂ ; Rara Lake, 2,990 m, Mugu Dist., Karnali, 25-26. ix. 1991, 1 ♀ ; Naudanda, 1,470 m, Kaski Dist., Gandaki, 12. x. 1991, 1 ♂ ; Chandrung, 1,920 m, Kaski Dist., Gandaki, 22. x. 1991, 1 ♀ (M. Owada). Godavari, 1,600 m, Kathmandu, 26. iii. 1990, 1 ♀ ; 31. i.-10. viii. 1992, 4 ♂ 4 ♀ ; 17. xi. 1992, 1 ♂ ; Mt. Phulchouki, 2,075 m, Kathmandu, 21. vii. 1990, 1 ♂ ; 4. viii. 1991, 1 ♂ ; Phulchouki, 1. vi. 1992, 1 ♀ ; Daman Pass, 2,330 m, SE of Kathmandu, 28. vi. 1992, 1 ♀ (*ex* T. Haruta). *Thailand* : Doi Pakia, ca. 1,500 m, Chiang Mai, 5-7. ix. 1987, 1 ♀ (Moriuti, Arita & Yoshiyasu). *Taiwan* : Alishan, 2,200 m, Chiai Hsien, 9-11. vii. 1964, 4 ♀ ; Fenchihu, 1,600 m, Chiai Hsien, 12-13. vii. 1964, 2 ♀ (H. Inoue). Taitung, vii. 1968, 1 ♀ (*ex* H. Kezuka). Lushan Spa, Nantou Hsien, 19-21. iii. 1972, 1 ♂ (K. Nakatomi). Nanshanchi, Nantou Hsien, 25. vii. 1973, 1 ♂ (Y. Shibata). Lushan Spa, 21-23. vii. 1981, 1 ♂ 1 ♀ ; Alishan, 10-11. viii. 1983, 1 ♀ ; Lushan Spa, 13-14. viii. 1983, 1 ♂ (R. Sato). Wushe, Nantou Hsien, 27. xii. 1988, 1 ♂ ; Yushih, Nantou Hsien, 29. xii. 1988, 1 ♀ ; Tsuifeng, Nantou Hsien, 29. xii. 1988, 3 ♀ (H. Nakajima). Wushe, 1,150 m, 27. xii. 1988, 1 ♀ ; Yushih, 1,700 m, 28. xii. 1988, 2 ♀ ; Tsuifeng, 2,400 m, 29. xii. 1988, 1 ♂ 3 ♀ (A. Kawabe). Chrysen, 2,600 m, Chiai Hsien, 11. vii. 1991, 1 ♂ 11 ♀ (B.-S. Chang). *Southwest China* : Li-kiang, Nord-Yuennan, 3 & 19. vi. 1934, 1 ♂ 1 ♀ ; 6 & 20. ix. 1934, 1 ♂ 1 ♀ (H. Höne). Eight paratypes from India, Nepal

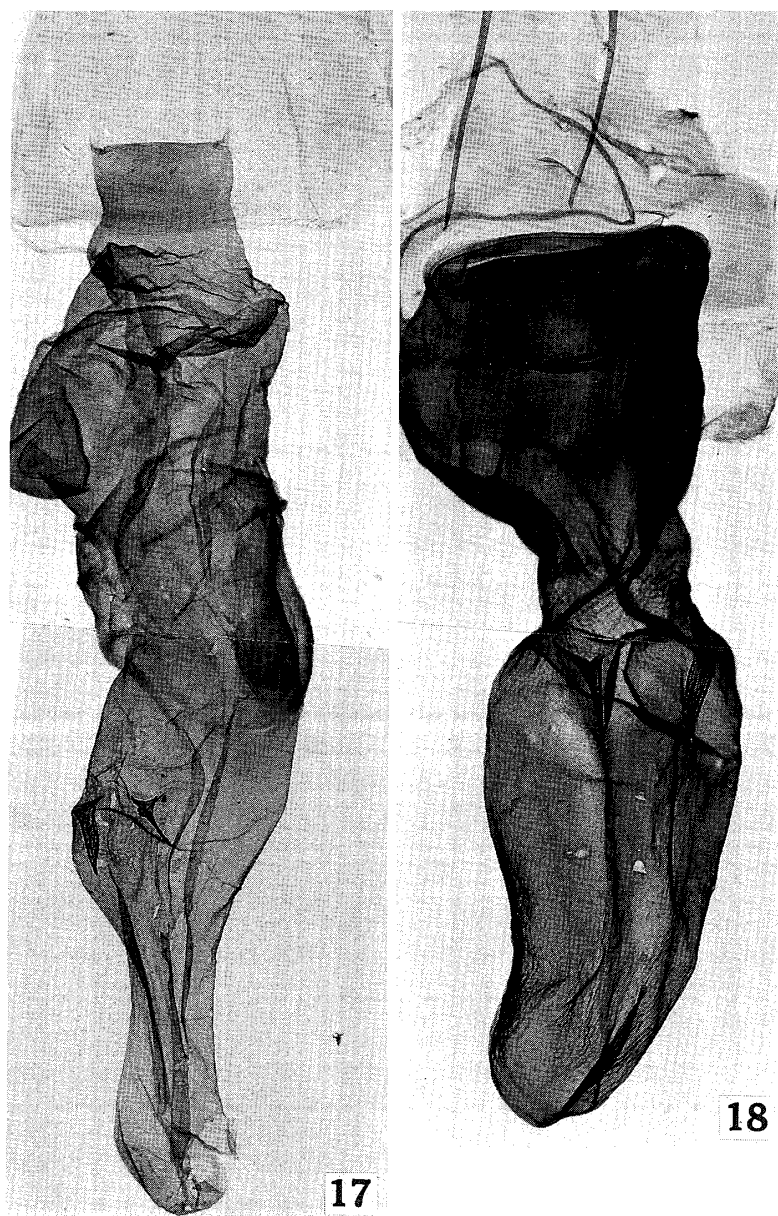


Figs 15-16. Male genitalia of *Palpita* spp. 15. *P. unionalis* (HI Slide 13799). 16. *P. perunionalis* (HI Slide 13706).

and Taiwan in coll. National Science Museum, Tokyo, and four paratypes from China in coll. Museum A. Koenig, Bonn.

Distribution. India, Nepal, Thailand, Southwest China, Taiwan.

In my collection there are 3 ♂ and 1 ♀ of *nigropunctalis* secured on the island of Lanyu, 18. ix. & 10-11. x. 1990 (H.Y. Weng, *ex coll.* B.-S. Chang). Lanyu is about 75 km east of southern extremity of Taiwan and its fauna and flora are more similar to the Philippines than to the mainland of Taiwan. I have 1 ♀ of the same species from Hahajima, Ogasawara Islands, collected on 28. ix. 1977 (Y. Watanabe). The discovery of these specimens from the isolated Pacific islands are apparently accidental.



Figs 17-18. Female genitalia of *palpita* spp. 17. *P. unionalis* (HI Slide 13800). 18. *P. perunionalis* (HI Slide 13653).

Hampson, 1896: 352, recorded the well-known African and south European *Palpita unionalis* (Hübner) as distributed “throughout India and Ceylon; Australia”, but the specimens he examined were a mixture of several closely similar species. Kirti & Rose, 1992: 73, recorded *P. unionalis* from northwest India, but they could not find it from northeastern part of India. I am sure that Assam district of India, Nepal and Thailand yield a *unionalis*-like new species described below.

***Palpita perunionalis* sp. nov.** (Figs 7, 8)

Forewing with costal band paler, more yellowish than in *unionalis*, but sometimes basal half of costa tinged with greyish brown. Both wings often almost unmarked, but sometimes blackish brown dots at dorsal and ventral edge of discocellulars of forewing and that



at ventral edge of discocellulars of hindwing clear. Abdomen with anal tuft of blackish and whitish hairs as strong as in *unionalis*. Size usually larger, wingspan more than 30 mm, with a very few exceptions.

Male genitalia (fig. 16). The length of apical process of harpe about two-thirds of dorsal one, while in *unionalis* it is about one-third, the ventral one more straightish. The double cornuti are quite distinct in shape: one is triangular, the other is a serrated plate, while in *unionalis* there are two straight horn-like cornuti, both being longer than half length of aedeagus and there are numerous slender spines.

Female genitalia (fig. 18). Ostium much wider and more strongly sclerotized, lamella postvaginalis triangularly sclerotized, the double signa longer than in *unionalis*.

Type-series. HOLOTYPE. ♂: Godavari, 1,600 m, Kathmandu, Nepal, 30. vii. 1991 (ex T. Haruta). PARATYPES. *India*: Darjeeling, 2,100 m, West Bengal, 9. xi. 1981, 1 ♂ (M. Owada). Darjeeling, 14-15. vi. 1978, 1 ♂ 1 ♀ (T. Miyashita). Dalapchand Aritaai, 1,500 m, E. Sikkim, 6 & 16. iii. 1992, 2 ♀; 3. ix. 1992, 1 ♀ (ex T. Haruta). *Nepal*: Kabre, 1,760 m, Dlakha, Janakpur, 17. x. 1979, 1 ♀ (M. Owada). Godavari, 1,600 m, 28. iii. & 24. iv. 1990, 1 ♂ 1 ♀; 23. v. 1991, 2 ♀; 7. viii. 1991, 1 ♂; 9. ix. 1991, 1 ♀; 19. iv. 1992, 1 ♀; Phulchouki, 2,075 m, Kathmandu, 4. viii. 1991, 1 ♀ (ex T. Haruta). *Thailand*: Doi Inthanon, Chiang Mai, 16-21. x. 1983, 2 ♀ (M. Owada). Doi Pui, 1,300 m, Chiang Mai, 1-4. ix. 1987, 1 ♀ (Moriuti, Saito, Arita & Yoshiyasu). Two paratypes from India and Thailand in coll. National Science Museum, Tokyo.

Distribution. Northeast India, Nepal, Thailand.

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## 摘 要

メイガ科ノメイガ亜科 *Palpita* 属の東アジアからの2新種 (井上 寛)

### ***Palpita asiaticalis* Inoue, sp. nov.**

長いあいだ *P. nigropunctalis* (Bremer) マエアカスカシノメイガ (日本, ロシア沿海州, サハリン, クリル, 朝鮮, 中国東部) と混同されていたごく近縁の別種で, インド, ネパール, タイ国, 中国南西部, 台湾に分布する.

### ***Palpita perunionalis* Inoue, sp. nov.**

アフリカから南欧に分布し, 移動種として北欧でもしばしば採集され, ヨーロッパの図鑑でもおなじみの *P. unionalis* (Hübner) と混同されていた別種で, インド北東部, ネパール, タイ国に分布する. *P. unionalis* はインド北西部まで分布しているようだが, 両種の分布は重なっていない.

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